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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WENDELL, ANDREW

ART UNIT PAPER NUMBER

2618

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/814,909	HODDIE, J. PETER	
	Examiner	Art Unit	
	Andrew Wendell	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 30 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/30/2006 has been entered.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9-11, 16, 19-22, 24, 29-31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071).

Regarding claim 1, Kotzin's subscriber device for enhancing interfaces thereto teaches a wireless communication interface 103 (Fig. 1) supporting communication across a wireless connection 109 and 111 (Fig. 1); and a controller 207 (Fig. 2) connected to the wireless interface 203 and 209 (Fig. 2) supporting a negotiation service and a communication service (Section 0019); wherein the negotiation service provides interface negotiation for using the wireless interface to negotiate with another

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device to select a communication interface for communication of data with the another device (Sections 0019-0021), wherein the negotiation service negotiates to select an appropriate communication interface for communication of the data with the another device (Sections 0019-0021), and the communication service provides control and management of communication with the another device across a connection established using the negotiation service (Sections 0019-0021). It is obvious that there is communication of data between the devices since it is part of a network structure and supports services (messages, Sections 0013-0014). However, Kotzin fails to specifically teach communication of data and separate interface.

Bahl's wireless capability discovery and protocol negotiation teaches an interface for communication of data with another device (wireless data session, Section 0013) and wherein the communication interface is separate interface from the wireless interface used for interface negotiation (Sections 0011-0014).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate communication of data and separate interface as taught by Bahl into Kotzin's wireless communication interface in order to provide a new and improved wireless discovery and configuration protocol (Section 0010).

Regarding claim 2, the combination including Kotzin teaches wherein the wireless interface support Bluetooth (Section 0014).

Regarding claim 3, the combination including Kotzin teaches a second communication interface 209 (Fig. 2).

Regarding claim 4, the combination including Bahl teaches wherein a second communication interface supports Wi-Fi (Fig. 3).

Regarding claim 5, the combination including Kotzin teaches wherein each of the wireless interface and the second communication interface support respective types of wireless communication WAN and LAN (Fig. 2 and Sections 0013-0014).

Regarding claim 6, the combination including Kotzin teaches a third communication interface 211 or 223 or 225 (Fig. 2) supporting a wired connection (Section 0013).

Regarding claim 9, the combination including Kotzin teaches wherein a first connection opened using the negotiation service and the wireless interface is kept open while a second connection opened using the communication service and the second communication interface is open (Section 0017).

Regarding claim 10, the combination including Kotzin teaches wherein the negotiation service provides interface negotiation automatically (Sections 0019-0021).

Regarding claim 11, the combination including Kotzin teaches wherein the negotiation service provides interface negotiation in response to a request by a user (Section 0029).

Regarding claim 13, the combination including Kotzin teaches wherein the negotiation service selects a communication interface using settings previously provided by a user (Section 0029).

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Regarding claim 16, the combination including Kotzin teaches wherein the wireless interface supports an indirect connection to another device using a network (Section 0013 and 0014).

Regarding claim 19, Kotzin teaches searching for a second device using a default interface of a first device (Sections 0019-0021); establishing a negotiation connection between the first device and the second device using the default interface (Sections 0019-0021); negotiating to select a communication interface using the negotiation connection (Sections 0019-0021); establishing a communication connection using the selected interface (Sections 0019-0021); communicating data between the first device and the second device using the communication connection (Sections 0019-0021), wherein the negotiating to select a communication interface includes negotiating to select an appropriate communication interface for communicating the data between the first device and the second device (Section 0019-0021); and closing the communication connection 427 (Fig. 4); wherein the default interface is a wireless interface 203 or 209 (Fig. 2). It is obvious that there is communication of data between the devices since it is part of a network structure and supports services (messages, Sections 0013-0014). However, Kotzin fails to specifically teach communication of data and separate interface.

Bahl's wireless capability discovery and protocol negotiation teaches an interface for communication of data with another device (wireless data session, Section 0013) and wherein the communication interface is separate interface from the default interface used for interface negotiation (Sections 0011-0014).

Regarding claim 20, the combination including Kotzin teaches further comprising searching for the second device using a secondary interface 209 (Fig. 2).

Regarding claim 21, the combination including Kotzin teaches wherein the negotiation connection is open while the communication connection is open (Section 0017).

Regarding claim 22, the combination including Kotzin teaches wherein negotiating to select a communication interface includes determining one or more available interfaces (Sections 0019-0021); determining one or more compatible interfaces from among the one or more available interfaces (Sections 0019-0021); and selecting one of the one or more compatible interfaces as the communication interface using one or more communication criteria (Sections 0019-0021).

Regarding claim 24, the combination including Kotzin teaches wherein negotiating to select a communication interface also includes selecting a communication mode (Sections 0019-0021).

Regarding claim 29, Kotzin teaches means for searching for a second device using a default interface of a first device (Sections 0019-0021); means for establishing a negotiation connection between the first device and the second device using the default interface (Sections 0019-0021); means for negotiating to select a communication interface using the negotiation connection (Sections 0019-0021); means for establishing a communication connection using the selected interface (Sections 0019-0021); means for communicating data between the first device and the second device using the communication connection (Sections 0019-0021), wherein the means for negotiating

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selects an appropriate communication interface for communicating the data between the first device and the second device (Sections 0019-0021); and means for closing the communication connection 427 (Fig. 4); wherein the default interface is a wireless interface 203 or 209 (Fig. 2). It is obvious that there is communication of data between the devices since it is part of a network structure and supports services (messages, Sections 0013-0014). However, Kotzin fails to specifically teach communication of data and separate interface.

Bahl's wireless capability discovery and protocol negotiation teaches an interface for communication of data with another device (wireless data session, Section 0013) and wherein the communication interface is separate interface from the default interface used for providing negotiation connection (Sections 0011-0014).

Regarding claim 30, the combination including Kotzin teaches means for determining one or more available interfaces (Sections 0019-0021); means for determining one or more compatible interfaces from among the one or more available interfaces (Sections 0019-0021); and means for selecting one of the one or more compatible interfaces as the communication interface using one or more communication criteria (Sections 0019-0021).

Regarding claim 31, the combination including Kotzin teaches means for selecting a communication mode (Sections 0019-0021).

Regarding claim 33, Kotzin teaches search for a second device using a default interface of a first device (Sections 0019-0021); establish a negotiation connection between the first device and the second device using the default interface (Sections

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0019-0021); negotiate to select a communication interface using the negotiation connection (Sections 0019-0021); establish a communication connection using the selected communication interface (Sections 0019-0021); communicate data between the first device and the second device using the communication connection (Sections 0019-0021), wherein the step to negotiate to select a communication interface includes a step to negotiate to select an appropriate communication interface for communicating the data between the first device and the second device (Sections 0019-0021); and close the communication connection 427 (Fig. 4); wherein the default interface is a wireless interface 203 or 209 (Fig. 2). It is obvious that there is communication of data between the devices since it is part of a network structure and supports services (messages, Sections 0013-0014). However, Kotzin fails to specifically teach communication of data and separate interface.

Bahl's wireless capability discovery and protocol negotiation teaches an interface for communication of data with another device (wireless data session, Section 0013) and wherein the communication interface is separate interface from the wireless interface used for interface negotiation (Sections 0011-0014).

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) as applied to claims 1 and 3 above, and further in view of Janik (US Pat Appl# 2004/0253945).

Regarding claim 7, Kotzin's subscriber device for enhancing interfaces thereto in view of Bahl's wireless capability discovery and protocol negotiation teaches the

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limitations in claims 1 and 3. Kotzin shows in figure 2 a WAN and LAN interface and it is known that a LAN has a higher data rate than a WAN. However, Kotzin and Bahl fail to teach about a second communication interface providing a higher data rate than the wireless interface.

Janik system for interactivity for thin client devices teaches wherein the second communication interface (LAN) provides a higher data rate than the wireless interface (WAN) (Section 0017).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a second communication interface providing a higher data rate than the wireless interface as taught by Janik into communication of data as taught by Ishii et al. into Kotzin's wireless communication interface in order to optimize set up preferences for varying types of services delivered to devices (Section 0027).

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) as applied to claims 1 and 3 above, and further in view of Moon et al. (US Pat Appl# 2005/0076054).

Regarding claim 8, Kotzin's subscriber device for enhancing interfaces thereto in view of Bahl's wireless capability discovery and protocol negotiation teaches the limitations in claims 1 and 3. Kotzin and Bahl fail to teach a second interface using more power than a wireless interface.

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Moon et al. arrangement for autonomous mobile network nodes to organize a wireless mobile network teaches wherein a second communication interface uses more power than a wireless interface (Section 0037).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a second interface using more power than a wireless interface as taught by Moon et al. into communication of data as taught by Ishii et al. into Kotzin's wireless communication interface in order to provide means to switch between communication modes (Sections 0015 and 0016).

5. Claims 12, 14-15, 17-18, 25, 27-28, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) and further in view of Shah et al. (US Pat Appl# 2004/0023652).

Regarding claim 12, Kotzin's subscriber device for enhancing interfaces thereto in view of Bahl's wireless capability discovery and protocol negotiation teaches the limitations in claim 10. Kotzin and Bahl fails to teach a negotiation service selects a communication interface without user input.

Shah et al. wireless personal communicator teaches wherein the negotiation service selects a communication interface without user input (Sections 0017-0029).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a negotiation service selects a communication interface without user input as taught by Shah et al.

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into communication of data as taught by Ishii et al. into Kotzin's wireless communication interface in order to switch from one type of network to another with out loss of connectivity (Section 0016).

Regarding claim 14, Shah et al. further teaches wherein the wireless interface supports a direct connection to another device (Section 0023).

Regarding claim 15, the combination including Shah et al. teaches wherein the direct connection is a newly established ad hoc network established with another device (Section 0023).

Regarding claim 17, Kotzin teaches wherein the wireless interface supports receiving a signal from an IEEE802.11b source (Section 0014), and the negotiation service uses the signal to open communication (Sections 0019-0021). Kotzin and Ishii et al. fails to clearly teach a beacon signal.

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a beacon signal as taught by Shah et al. into communication of data as taught by Ishii et al. into Kotzin's wireless communication interface in order to switch from one type of network to another with out loss of connectivity (Section 0016).

Regarding claim 18, Kotzin teaches wherein the signal indicates another device as a target device and a target interface, and another device is different from the

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IEEE802.11b source (Sections 0014 and 0019-0021). Kotzin and Ishii et al. fails to clearly teach a beacon signal.

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a beacon signal as taught by Shah et al. into communication of data as taught by Ishii et al. into Kotzin's wireless communication interface in order to switch from one type of network to another with out loss of connectivity (Section 0016).

Regarding claim 25, Shah et al. further teaches wherein: the communication mode indicates whether to use a direct connection between the first device and the second device or an indirect connection between the first device and the second device for the communication connection (Sections 0017-0029).

Regarding claim 27, Kotzin teaches receiving a signal from an IEEE802.11b source at the device (Sections 0014 and 0019-0021); and determining a target device and a target interface using the signal (Sections 0019-0021); wherein the target device is the second device and the target interface is the default interface (Sections 0019-0021). Kotzin and Ishii et al. fails to clearly teach a beacon signal (IEEE802.11b).

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a beacon

signal as taught by Shah et al. into communication of data as taught by Ishii et al. into Kotzin's wireless communication interface in order to switch from one type of network to another with out loss of connectivity (Section 0016).

Regarding claim 28, Kotzin further teaches wherein the target device is different from the beacon source (Sections 0014 and 0019-0021).

Regarding claim 32, Kotzin teaches means for receiving a signal from an IEEE802.11b source at the device (Sections 0014 and 0019-0021); and means for determining a target device and a target interface using the signal (Sections 0019-0021); wherein the target device is the second device and the target interface is the default interface (Sections 0019-0021). Kotzin and Ishii et al. fails to clearly teach a beacon signal (IEEE802.11b).

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a beacon signal as taught by Shah et al. into communication of data as taught by Ishii et al. into Kotzin's wireless communication interface in order to switch from one type of network to another with out loss of connectivity (Section 0016).

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) in view of Carlton et al. (US Pat Appl# 2005/0141450) and in further view of Moon et al. (US Pat Appl# 2005/0076054).

Regarding claim 23, Kotzin's subscriber method for enhancing interfaces thereto in view of Bahl's wireless capability discovery and protocol negotiation teaches the limitations in claim 19. Kotzin teaches a communication criteria (Sections 0019-0021), but it is unclear what parameters have to be met. Kotzin and Bahl fail to teach clearly about a communication criteria that includes data rate and power use.

Charlton et al. method for integrating resource allocation between wireless communication systems teaches a communication criteria that includes data rate (Section 0027). Charlton et al., Ishii et al., and Kotzin fail to teach a communication criteria that includes power use.

Moon et al. arrangement for autonomous mobile network nodes to organize a wireless mobile network teaches a communication criteria that includes power use (Section 0037).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a communication criteria that includes data rate as taught by Charlton et al. into a communication criteria that includes power use. as taught by Moon et al. into communication of data as taught by Ishii et al. into Kotzin's wireless communication interface in order to provide means to switch between communication modes (Sections 0015 and 0016).

7. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) as

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applied to claims 19, 22, and 24 above, and further in view of Ahonen (US Pat Appl# 2005/0190920).

Regarding claim 26, Kotzin's subscriber device for enhancing interfaces thereto in view of Bahl's wireless capability discovery and protocol negotiation teaches the limitations in claim 19, 22, and 24. Kotzin and Bahl fails to teach an encryption set up in a communication mode.

Ahonen's digital wireless data communication network for arranging end to end encryption teaches wherein the communication mode indicates a type of encryption to use for the communication connection (Sections 0001-0008 and 0028-0030). Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate an encryption set up in a communication mode as taught by Ahonen into communication of data as taught by Ishii et al. into Kotzin's wireless communication interface in order to increase security (Section 0021).

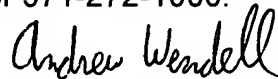
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Wendell whose telephone number is 571-272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Andrew Wendell
Examiner
Art Unit 2618

11/6/2006

 11/09/06

QUOCHIE B. VUONG
PRIMARY EXAMINER